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THE MULATTO A HYBRID—PROBABLE EXTERMINATION OF THE TWO RACES IF THE WHITES AND BLACKS ARE ALLOWED TO INTERMARRY.

By J. C. Nott, M.D., Mobile.

The reader will probably be astonished at this late day to see so novel an assertion as that the mulatto is a hybrid; but I hope he will read and ponder upon the facts given below before he concludes that it has no foundation in reason.

A writer in the Boston Medical and Surgical Journal, under the signature of "Philanthropist," has made the following important and interesting statements.

[Dr. N. here quotes the article of our correspondent, on the longevity of pure Africans and the early deaths of mulattoes, which was published in the 10th No. of Vol. XXVII., and which it is unnecessary for us to re-print.]

The extracts above are from the November No., 1842, of the Boston Journal. I am rejoiced to see light breaking from this point of the compass, as the writer cannot be charged with sectional prejudice, or the influence of self-interest.

I have myself been actively engaged in the practice of medicine for the last fifteen years in the South, and in situations where the population is pretty equally divided between the blacks and whites. I was soon struck by certain facts connected with the mulattoes, and my attention since has been turned to their peculiarities. My observation has led me to the following conclusions :—

1st. That the mulattoes are intermediate in intelligence between the whites and blacks.

2d. That they are less capable of endurance and are shorter lived than the whites or blacks.

3d. That the mulatto women are particularly delicate—are subject to many chronic diseases, and especially derangement of the catamenia, prolapsus uteri, leucorrhœa, and other diseases peculiar to females.

4th. That the women are bad breeders and bad nurses—many of them do not conceive at all—most are subject to abortions, and a large portion of their children die at an early age.

5th. That the two sexes when they intermarry are less prolific, than when crossed on one of the parent stocks.

6th. That the above facts apply with more force to the Terceroons and Quarteroons than to Mulattoes.*

7th. That during the severe epidemics of yellow fever in Mobile in the years 1837, '39, and '42, I did not see a single individual attacked with this disease, who was in the remotest degree allied to the Negro race—I heard, however, of one or two cases in the practice of others.

I have thus far laid down what I believe to be truths—though the general rules, strong as they are, will be found subject to many exceptions. If true, they open to the philosopher and philanthropist a wide field for exploration. I will here attempt nothing more than to throw out some materials for reflection. I am well aware that my assertions would have much greater weight, if they were supported by statistics; but the habits and condition of the Mulattoes in the South render it extremely difficult to obtain satisfactory statistics—they would rest upon my veracity alone. In the northern cities ample materials exist for investigating this subject, and I hope it will be taken up by some one who will do it justice.

The space here allowed would not permit, nor does my present purpose require, that I should enter fully into the discussions on the natural history of the human race, or the many definitions which have been given of the term *species*. The Caucasian, Ethiopian, Mongol, Malay, and American, may have been distinct creations, or may be mere varieties of the same species, produced by external causes acting through many thousand years; but this I do believe, *that at the present day the Anglo-Saxon and Negro races are, according to the common acceptation of the terms, distinct species, and that the offspring of the two is a hybrid.*

Look first upon the Caucasian female with her rose and lily skin, silky hair, Venus form, and well-chiselled features—and then upon the African wench, with her black and odorous skin, woolly head and animal features—next compare their intellectual and moral qualities, and their whole anatomical structure, and say whether they do not differ as much as the swan and the goose, the horse and the ass, or the apple and pear trees. How all this comes to pass is not for me to say—it has pleased the Creator, at some period of time, so to make or change them. The American Indian, too, though living in all latitudes and in a savage state, besides his hair, beardless chin, well-shaped foot and leg, and tawny skin, has many other peculiarities which are just as striking.

I have said that the Mulatto is a *hybrid*. By this term is understood the offspring of two distinct species—as the mule from the horse and the ass. This is a very curious subject, on which much might be said; but I have space for but a very few general remarks. There are a great variety of hybrids running through the whole chain of animated nature, from man down through both animal and vegetable kingdoms. Some hybrids do not breed, as the mule. There are instances of their having propagated when crossed back on one of the parent stocks. There are other hybrids which do propagate perfectly, as the offspring of the he-goat and ewe—the goldfinch and Canary birds, the cygnoides (Chinese goose) and common goose, &c. &c.

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* Under the general term Mulatto, I shall for brevity include, Terceroons, Quarteroons, Quinteroons, &c.

Hybrids when bred together have a tendency to run out and change back to one of the parent stocks. This has been remarked of the Mulattoes in the West Indies, and there are now in Mobile families of children from the same parents, some of whom are nearly white and others nearly black, and there is every reason to believe that the mothers have been faithful to their husbands.

A general law laid down by naturalists is, that the hybrid derives its size and internal structure principally from the mother, and a striking example is given in the mule. The mule, or offspring of the mare and jack, is a large and powerful animal, having the internal organization of the mother. The bardeau, on the contrary (the offspring of the stallion and jenny), is a small and comparatively worthless animal.

As many of these hybrids are governed by different laws, is it not reasonable that the human hybrid may also have its peculiar laws—may not one of these laws be (which might be inferred from the foregoing data) that the Mulatto or hybrid is a degenerate, unnatural offspring, doomed by nature to work out its own destruction?

The statistics given by "Philanthropist" prove that the Mulattoes are much shorter lived, and it is a common subject of remark in the southern States, that they are more liable to be diseased, and less capable of endurance, than the whites or blacks of the same rank and condition. What then could we expect in breeding from a faulty stock—a stock which has been produced by a violation of nature's laws—but that they should become more degenerate in each successive generation? We know that the parent will transmit to the child not only his expression, external form, character, temperament, &c., but even diseases through many generations, as gout, scrofula, consumption, &c.; why, then, may not that defective internal organization, which leads to ultimate destruction, exist in the Mulatto?

Estwick and Long, who are high authorities, in their histories of Jamaica, both assert unhesitatingly, that the male and female Mulatto do not produce so many children together, as if they were united respectively to negresses or Europeans. I am, too, credibly informed that these facts are verified in New Orleans, and that in that city there are many instances where families have run out so completely as to leave an estate without an heir to claim it.

It has been asserted by writers, that when the grade of Quinteroon is arrived at, all trace of black blood is lost, and that they cannot be distinguished from the whites. Now, if this be true, most of the Mulattoes must cease to breed before they arrive at this point of mixture; for though I have passed most of my life in places where the two races have been mingling for many generations, I have rarely if ever met an individual tainted with black blood, in whom I could not detect it without difficulty.

These higher grades should be extremely common if the chain was not broken by death and sterility. How else can the fact be accounted for?

Virey, a distinguished French naturalist, states, that the connections between Europeans and the women of New Holland are very seldom prolific! This looks very like some difference in species.

There are also some curious facts connected with the brain and intellectual faculties, which bear strongly on the question of distinct species.

It is well settled by anatomists and physiologists, that the brain of the Negro compared with the Caucasian, is smaller by a full tenth, that its nerves are larger, the head differently shaped, the facial angle less, and the intellectual powers comparatively defective. In the white race the fact is notorious that the child derives its intellect much more from the mother than the father. It is an old remark *that a stupid mother never produces an intelligent family of children.* Look the world over, and ask who are the mothers of the eminent men, and it will be found that there are few exceptions to the rule, that the mothers are above, and most of them far above, mediocrity; but this law is reversed when the white man is crossed upon the negress, or Indian woman—in the offspring the brain is enlarged, the facial angle increased, and the intellect improved. Every observer in the South will tell you that the Mulattoes have more intelligence than the blacks, and we know that the leading men amongst the Indians are the mixed class.

The Mulattoes do not make good slaves, and are always leaders in insurrections.

Buffon and other naturalists assert that *in hybrids the head resembles the father.* In the mule it resembles the ass—in the bardeau it is long, lean, with short ears like the horse. This law holds in other hybrids, and bears strongly on the question before us.

Lawrence, than whom there is no better authority, says, "the intellectual and moral character of the Europeans is deteriorated by the mixture of black or red blood; while on the other hand an infusion of white blood tends in an equal degree to improve and ennoble the qualities of the dark varieties."

These remarks, though hastily drawn up, are the result of many years' observation; and I am satisfied that full investigation will show that they are substantially true. Every intelligent reader will see the many important bearings of this subject, and I hope it will fall into the hands of some one who has more ability and more leisure to bestow on it. If I can start the ball my object is accomplished.—*The American Journal of the Medical Sciences.*

A CURIOSITY IN OBSTETRIC PHYSIOLOGY.

By John H. Griscom, M.D., one of the Physicians of the New York Hospital.

In the month of October, 1841, I was consulted by Mrs. R. M. H., for a hæmorrhagic discharge from the vagina, she being pregnant, as she believed, about seven months. This discharge had existed about five months, mostly every day, but sometimes ceasing for a while; but latterly it had become more steady. She described it as apparently not pure blood, but a mixture of blood and water, or very thin blood, of a bright color, and never coagulated. She had felt the motions of the fœtus with considerable distinctness, until within a month, since when they had diminished in strength and frequency, and for the last few days had totally ceased. Her general health (except some muscular pains, and some difficulty in moving about actively), and her appetite, were excellent. She was bled on the 16th, the blood being unusually black. The operation enlivened her much, and she thought she felt some movement of the fœtus, but too indistinct to be certain of it. An examination of the abdomen, in the sitting posture, developed a general enlargement which was quite soft, with none of the uniform and peculiar firmness of the healthy impregnated uterus of that period. Midway between the umbilicus and pubis, the fingers could be pressed back nearly to the prominence of the sacrum. When this was done, there were distinct traces of a tumor, occupying the right iliac fossa, of an elongated form, and very tender to the touch, and a smaller tumor at the left side of the median line. The upper edges of both were distinctly perceived by the hand when pressed gently between them. There was no requirement for any interference until the 24th, when the husband came to me and said he believed she was in labor. I found her sitting up, and having what seemed very much like labor pains, every few minutes. These ceased in a few hours, but recurred slightly the following day. On the 26th she went to bed, complaining of severe pain in the abdomen generally, greatly increased at short intervals, but not subsiding entirely at the intermissions.

An examination, per vaginam, was now made, and a firm round tumor was perceived, giving the distinct impression of a fœtal head felt through the parietes of the uterus. It was moveable, as is ordinary in pregnancy, and motion was communicable through it to the abdomen.

The abdomen now became very tender to the touch, especially over the right tumor; the pulse rose to one hundred and thirty, and the tongue became coated; and though both tongue and skin remained moist, the tenderness of the abdomen soon became so excessive, that peritonitis appeared severely developed. The hæmorrhage from the vagina now disappeared, and did not recur. Active antiphlogistic treatment was adopted; and each successive effort produced a subsidence of the symptoms, but for a few minutes only. The flame would suddenly light up again, after a short period of ease to the patient, and of hope to the attendants, and burn with increased intensity, until, at the end of the week, she sank calmly in death.

When confined to the bed, Mrs. H. first informed me that she had *always* doubted her being pregnant, though she had had many of the usual symptoms, such as enlargement of the mammæ, with exudation of their milk, motions of fœtus, &c.; but the latter were often so obscure as to lead her to hesitate between them and borborygmi.

Autopsia in company with Drs. Boyd, Swett, and S. T. Smith. The interior abdomen presented the usual appearances of inflammation of the peritoneum and intestines, with great vascular injection of the omentum, and loss of its substance; and among the folds of the bowels and through the cellar tissue, there was a large quantity of reddish purulent matter. In the right iliac fossa was a large tumor, of a blue color, and towards the left was the uterus, about the size of that organ in the second month of pregnancy. Extensive recent adhesions existed between the bowels and the tumor, and in separating them, several ulcerated holes were discovered in the membrane covering the tumor.

The tumor was found to dip down into the pelvic cavity, and was subsequently observed to occupy its entire extent. The contents of the pelvis were removed and laid upon a platter for closer inspection. The uterus was first opened longitudinally; it was very healthy looking, except in size, and was entirely void of anything like a fœtus. It contained a small quantity of mucus, and its inner surface was copiously dotted with red points. The left Fallopian tube and ovary were sound, as was also the right tube. The latter was traversed with some difficulty by means of bristles, up to the fimbriated extremities, which terminated against the tumor, the latter being in fact the right ovarium, developed to the size of a large cocoa nut. This was opened longitudinally, and immediately there was brought to view a perfectly-formed fœtus, of about six months, placenta and all complete. The child appeared to have been dead a considerable time; it was very soft, and the placenta was partially converted into purulent-looking matter, similar to that found in the peritoneal cavity. It had escaped through the openings before noticed. The ovarium, as now seen, consisted of a large sac, of a mingled muscular and membranous texture, about as thick as a silver dollar, and was irregularly divided into three or four large cells by membranous partitions. The fœtal head presented towards the vagina.—*N. Y. Journal of Medicine and the Collateral Sciences.*

FATAL CASE OF PERFORATION OF THE DUODENUM.

By Joshua W. Ash, M.D., of Delaware County, Pa.

T. R., æt. 50 years, of strongly-marked bilious temperament, energetically active in the prosecution of an extensive business, regular and temperate in his habits, and possessing robust, general health, was attacked suddenly, at 11 o'clock, A. M., June 15th, 1843, while sitting in a meeting for worship, with pain in the epigastric abdominal region of the most intense severity. He had complained for several hours previously of a heavy pain in the right hypochondrium, hard to bear, but not in his estimation sufficiently important to detain him at home. The same had occurred at several different times during the preceding week, which, after lasting a longer or shorter time, had gone off, leaving little or no inconvenience behind. Six weeks previously he had a chill, followed by fever, which confined him but for a day or two. His appetite was good, sleep natural; digestion, assimilation and other functions healthy; intestinal, urinary and other secretions perfectly regular, and his whole health, with the above noted exceptions, had been perfectly good up to the moment of attack. I happened to be present, and being called upon, accompanied him home. His pulse was entirely unaffected, his tongue clean and moist, with a skin soft and natural, but which soon became bedewed with copious perspiration, from the intensity of his suffering. His stomach was calm, and he had had a free alvine discharge since breakfast. There existed reducible inguinal hernia of the left side, which was found upon examination entirely free from soreness and pain. In addition to the abdominal pain he complained much of a sense of stricture across the shoulders, extending from before backwards, such as would result from a hard cord drawn tightly across, causing an intensity of suffering, but little less in degree than the abdominal pain. To mitigate the extreme severity of the agonizing pain under which he was suffering, was to my mind the first indication, and one that called imperatively for prompt and decisive action. To effect this object, and with a view at the same time to speedily unload the bowels, I directed full doses of opium, combined with calomel and aided by stimulating enemata. A large sinapism was applied to the abdomen, and blood freely drawn from the arm.

Failing by these measures to produce the desired relief, the injections having in every instance returned without bringing away any fæcal matter, I had him immersed in a warm bath, with only temporary relief. Blood was again drawn freely from the arm, and calomel and opium, in divided doses, alternated with castor oil and sp. terebinth., directed to be given every two hours until the bowels should be moved, together with fomentations to the abdomen to be steadily and perseveringly applied. Upon taking the third dose of oil his stomach revolted, it was consequently discontinued, and infusion of senna substituted, which, with two grains of calomel, were directed to be continued every two hours, until the desired effect should be produced.

Twelve hours had now elapsed from the time of attack; the pain was mitigated but not subdued; on the contrary, it continued in a degree eminently distressing; the bowels had not yet responded to the measures used for the evacuation of their contents, the epigastric and hypochondriac regions (particularly the right) at this time had become in a high degree sensitive to pressure, the sensation produced being, as he expressed it, peculiar and indescribable, but not strictly painful: there being manifest disposition to sleep, I left him for the night, and saw him again at 5 o'clock the following morning. He had passed much of the night in a state of disturbed sleep, and was still dozing. Not yet was there any improvement in his condition, bowels still unmoved, the pulse had become irritated and accelerated in frequency. Directed a continuation of the treatment, with repetition of the warm bath. I gave a drop of croton oil, to be repeated in an hour should it not have operated, and left him until 9 o'clock, A. M., when I again saw him, and learned there had been a free discharge of blood from the hæmorrhoidal veins accompanying the return of an injection, but without the slightest relief to the symptoms; directed a steady continuance of the treatment till noon, substituting an emollient poultice over the whole abdomen in place of the fomentations, and then, should relief not have been procured, six dozen leeches to be applied to the abdomen. The abdominal sensibility had become increased in acuteness without extending much beyond its former limits; still the sensation produced upon the slightest touch, although unbearable, was not that of *pain*, but, in his own words, "a sort of indescribable tickling of the whole insides." His respiration had now a marked character of abruptness. The tongue was still clean and natural, as was also the state of the skin over the whole body. Thirst, which hitherto had not been remarkably urgent, became now incessant, calling for small quantities of liquid. The stomach was still unaffected with nausea; extreme restlessness demanded an almost incessant change of posture; the position generally assumed was on the back, slightly inclining to one or the other side, with the head and shoulders elevated to an angle with the horizon of about 30 or 35 degrees.

8 o'clock, P. M. The leeching has not procured for him the slightest relief, but the operation having occupied a long time, has induced a good deal of exhaustion. The bowels still continue obstinately unmoved, and although the pain is not so agonizing as at the beginning, it is still harassing in no ordinary degree; in short, the whole condition of the man is one of unmitigated, indescribable wretchedness. From this time till the hour of his death, which event occurred at 7 o'clock next morning, forty-four hours from the time the attack began, was occupied in persevering endeavors to quiet irritation, combat the advancing evidences of inflammation, and procure alvine discharges; but it was all to no purpose, the bowels remaining obstinately closed until the last, not giving issue even to the discharge of gas, until within a very short time of death, when a free discharge of flatus took place. His stomach became sick about four hours before death, from which time he threw up at intervals small quantities of bile-tinged liquid. His mental manifestations were unclouded and calm throughout the whole period, excepting a few slightly delirious expressions, while in a half-sleeping state, when under the influence of opium.

Autopsy, eight hours after death, aided by my friend, Dr. William E. Haines. Present, Drs. Joseph Wilson and A. E. Small.

The exterior of the body presented no marks worthy of particular note. The abdomen, somewhat distended, was more resisting than is usual. Upon cutting into the peritoneal sac there was a rush of gas; its cavity was found to contain a large amount of serous liquid tinged with bile, bearing a close resemblance to the liquid voided from his stomach during the last few hours of life; and, in the more depending parts a heavier matter, of a muco-purulent consistence and appearance. Recently-formed imperfect adhesions existed between the abdominal walls and viscera, in the right hypochondriac and contiguous portion of the epigastric region, where the evidences of the highest degree of the inflammatory action were met with. From this point it appeared to have spread as from a centre, and extended itself over the diaphragm, liver, stomach, spleen, and transverse colon—the omentum partaking largely. The whole surface of the liver, spleen and diaphragm, were coated with a layer of purulent matter; the small intestines exhibited but slight traces of inflammatory action. In the progress of the examination it soon became obvious that there existed somewhere a perforation of the intestinal canal, the search for which was commenced at the colic extremity. Passing ligatures around the bowel, it was cautiously separated by the scalpel, and carefully examined throughout its entire length, until, arriving at the duodenum, it was divided and removed. No evidences of disease deserving notice were discovered in any part of the removed portion, consisting of jejunum, ileum and colon. At this stage of the dissection, happening to notice that the gall-bladder was greatly distended, I passed my finger under its duct, and at the same time making pressure upon its surface, there was an immediate escape of some bilious liquid into the cavity of the belly, which led at once to the discovery of the perforation. This was of a circular form, with clean, even edges (as though it had been made by a shoemaker's punch), about as large as a medium-sized goose quill. Passing through the coats of the bowel near the entrance of the gall duct, it occupied a position on its concave or left side, about one and a half inches below the pylorus. Passing a ligature around the œsophagus, the stomach and duodenum were removed for closer inspection; laying them open from end to end, the perforation was found to have resulted from ulceration, which, judging from its appearances, was supposed to have occupied a long time in its accomplishment. Through the mucous and muscular coats it was about five-eighths of an inch in diameter, with clean, callous edges, rounded, and much thickened by interstitial deposition—the thickening extending but a little beyond the circumference of the ulcer. The internal coat of the stomach, as well as of the bowels, was apparently perfectly healthy, except only at the seat of ulceration, and for a few lines immediately around it. The gall-bladder was full to repletion, of a very thick, *black*, semi-liquid substance, which appeared to be bile mixed with venous blood. The colon contained a quantity of liquid fæces; and in the small intestines a single lumbricus was found.—*Philad. Med. Examiner.*

NEW EXPERIMENTS ON THE PHYSIOLOGY OF DIGESTION.

Considering how much health and long life are dependent upon a due culture of the assimilating powers, Professor Schultz instituted a series of experiments on the physiology of digestion. He observes very justly (in his new work on "the Rejuvenescence of Man, or renewal of Human Life") that the generally received opinions respecting the agency of the gastric juice are very unsatisfactory. They give no good account of mastication or rumination, or of the part the saliva takes in digestion, although digestion is performed in the mouth in many amphibia, and other animals have salivary glands in the stomach itself. Before relating the experiments of our author, we shall give the results of those already published in his work—*De Alimentorum concoctione.*

"1. That, excepting during digestion the secretions of the stomach are always alkaline; they are even alkaline at the commencement of digestion in many animals, and in those which fast long, as the hybernants, the contents of the intestinal canal are alkaline also.

"2. That the degree of acidity in the chyme in the different divisions of the stomach corresponds closely with the stage of digestion, is altogether different as the food is different, and becomes less as digestion is prolonged.

"3. That there is much less acid formed in the stomach during digestion, than is requisite to chemical action on the food. Chyme from vegetable food requires from one to one and a half per cent. of carbonate of soda for saturation; chyme from cheese requires from 1 to 1¾ per cent.; from flesh 2 to 2½ per cent. All the chyme in the stomach of a calf, amounting to about four ounces, was saturated by less than half a drachm of the carbonate. From forty to sixty grains at the most will saturate any quantity that may be found in the stomach of a dog.

"4. That the stomach like all other mucous membranes secretes mucus only, but is specially adapted for absorption of fluids; consequently, the stomachs of fasting men and animals are quite empty.

"5. That there is a great quantity of saliva being constantly secreted and also swallowed, even when digestion is not going on; that in animals furnished with a stomach having a horny lining, the saliva thus swallowed collects in considerable quantities: that in animals in which the mucous membrane of the stomach is naked, the saliva becomes concentrated by the absorption of the watery portion, leaving the fixed constituents in the stomach. Many ounces of this concentrated saliva may be found in the empty stomach of the horse. The parotid gland of a single horse secreted more than 100 ounces of saliva in twenty-four hours.

"6. That, consequently, all fluids found in the stomach, or extracted from the mucous membrane, necessarily contain salivary matter, or rather saliva in a concentrated state; and also that all gastric juices which have been collected or prepared for experiments, contain the salivary constituents.

"To these statements may be added—*a*. That, as Spallangani well knew, no food can be digested artificially without saliva. *b*. That the chyme is not a chemical solution, but an organic compound formed by the transformation of the constituents of the food; as for example, starch being transformed into sugar, sugar into acids; changes which never take place in the common experiments on artificial digestion. *c*. That the acid of the stomach is a product of digestion; that the alkaline contents of the stomach are first saturated before free acid is present, and that the latter during fasting gradually disappears, and an alkaline condition is restored; the period required for the completion of the changes varying in length from six to twelve hours. *d*. Permanent acidity is only observed in diseased states of the stomach, as in heart-burn, in which the digestion is impaired, although according to the chemical theory it ought to be energetic. Fermentation and the formation of carbonic acid gas, which never take place in healthy digestion, result from this diseased condition. *e.* The ingestion of acids during digestion interrupts that process under all circumstances.

"From all these statements it follows that the fluid which physiologists have termed the gastric juice, is only a medley of various things taken into the stomach, and not, with the exception of the mucus, secreted by it. The acid is a chemical product from the food, produced as the latter is continually agitated with the chyme. But above all, the acid gastric juice obtained by experimentalists from healthy men and dogs contained acid chyme. *There is, in fact, no such thing as acid gastric juice, but only sour chyme.*"—Pp. 187–190.

The flat contradiction here given generally to the inferences from Dr. Beaumont's experiments on the Canadian voyageur is followed up in a note by a special reference to these experiments. This contradiction is, however, pushed to its utmost limit when our author declares, in the very teeth of Dr. Beaumont's conclusions, that the saliva is the main agent in the digestive process. As this view has been advocated from experiments by at least one physician in England, we refer to Dr. Wright, and as it is also founded by Professor Schultz on carefully-made experiments, we shall notice it in detail as far as our crowded volume will allow.

New experiments on the digesting power of the Saliva. Prof. Schultz first prepared the saliva used in these experiments by concentrating it, for some, to the consistence of thin syrup; for others, to a state of perfect dryness. In the latter state it was reduced to a white friable mass, containing nevertheless the true digesting element; and formed, when rubbed up with five or six parts of water, a milky fluid, having the same proportion of fixed constituents as the less concentrated saliva, but constituting a fluid less effectual than the latter. The following are the results of these experiments:

"1. The transformation of potato-meal and of flour into sugar, by digestion in saliva at blood heat, was effected more rapidly in the concentrated than in the unconcentrated saliva. Transformation commenced in half an hour, and was completed in from two to three hours with an adequate supply of saliva.

"2. The mass thus acted upon by concentrated saliva acquired equally with unconcentrated saliva the power of changing unboiled starch into sugar. Free acid is formed in a small quantity only, just as in the digestion of boiled starch in the stomach.

"5. Cheese digested with concentrated saliva is acted upon almost immediately, and changed in from two to three hours into a chyme-like mass.

"4. Cooked muscular fibre colliquesces in like manner, the fibrils melting away, as I have figured in my previous work De Aliment. Concoct. The reduction, however, is not so rapid as that of cheese. This point appears to me of considerable importance, and is one not noticed in the accounts of the earlier attempts at artificial digestion. It must be observed that large portions of flesh are only chymified on the surface, so that the chyme thus formed must be removed by moving the portion under experiment, so that the subjacent parts may be duly exposed to the action of the digestive fluid. Minute pieces colliquesce much sooner than large. The concentrated saliva of the horse (which is very alkaline) digests flesh and cheese more readily, if the alkali it contains be previously neutralized either wholly or in part. On the other hand, the transformation of vegetable matters, as from starch to sugar, is more quickly effected by strong alkaline saliva.

"5. The saliva of the dog is less alkaline, and acts on animal fibre like the neutralized saliva of the horse.

"6. The digestion of animal fibre in the saliva of a horse is facilitated by mixing vegetable matters with it, as boiled starch."—P. 191–3.

The rules for promoting digestion may be easily gathered from the preceding experiments. In the first place, the food must be well masticated. This rule every physician commends to his dyspeptic patients. But thorough mastication demands the exercise of good teeth and active jaws. The masseters rarely fail; the teeth often. The cause of dental decay is well hinted at by our author. Physiologically, the teeth are products of the epidermis, and their healthy condition is as much influenced by that of the mucous membrane of the alimentary canal, as the cuticle and hair are by the condition of the cutaneous organs. To brush and scrub the teeth is well enough when they are sound and the digestive powers are good; but when decay begins to take place, attention must be directed to the digestive organs, if the progress of that decay is to be arrested. The first consideration will be not to slip the food down imperfectly masticated for fear of exciting toothache, but to comminute the food more minutely before putting it into the mouth, and then mixing it well with the saliva. It is exceedingly probable that the decayed teeth for which the Germans and Americans are nationally notorious, are dependent in a great degree on the too rapid ingestion of their food, so common with all classes of these people.

The secretion of saliva continues after completion of the meals, sometimes to an extraordinary amount.—(De Alim. Concoct., p. 57.) To swallow the saliva thus secreted is the best, because natural, remedy against morbid acidity. If the post-prandial secretion be defective, sweetmeats are its best excitants.

In delicate persons the *temperature* of the stomach may be too low for proper chymification, and warm drinks should be taken. Too great a quantity also of acid may be formed towards the end of the process. If this be the case, soda-water is commendable, or the carbonate of soda, or "fluid magnesia," previously diluted, or a flow of saliva may be excited, and the product swallowed.—*Brit. and Foreign Med. Review.*

SNAKES AND SNAKE-BITES AT THE SOUTH WEST.

To the Editor of the Boston Medical and Surgical Journal.

Sir,—I have prepared for your inspection a few observations relative to the different species of *snakes* common in this latitude. The classification I give is without regard to that of scientific naturalists, preferring rather to adopt the terms in vulgar use, leaving to the reader the task of a more correct one.

In a medical point of view there are many interesting facts connected with the history of these reptiles, that deserve attention. The annual recurrence of pathological phenomena following the bite of some species, is a circumstance almost universally unnoticed, and one that has led to many errors in diagnosis, and consequently in practice.

Of the *rattle snake*, we have two species—the larger kind, so common in most parts of the United States, is familiar to all. The *ground rattle snake* attains the length of ten or fifteen inches only—pieds darker than the large species, each terminating in a yellow margin. They are very slim, carry from three to seven rattles, and are extremely venomous.

The *pilot*, by some considered a species of *rattle snake*, grows from three to six feet long—resembles the large snake in many points—pieds not so bright—tail tapering to a point, with no rattles—head narrow and copper colored, armed with fangs, and poisonous.

Of the *moccasins* we have three species. The *highland* attains the length of four feet, slender and tapering gradually at the tail—head broad, copper colored, with fangs—belly pale yellow—back rusty brown. The *swamp*, or *stump-tail*, is from two to three feet long. They derive their name from their peculiar structure, being very large and abrupt in the termination of the extremities. The color of the back is darker than the highland, and the belly lighter. The head very broad, with very long fangs. When enraged, or annoyed by the approach of anything, they are extremely vicious, and attack with promptness. The *water moccasin* has a tapering head and tail, yellow belly, with yellow and brown pieds on the back. They are from one to two feet long, and not regarded as very venomous, from the circumstance that they never bite under water.

The *spreading adder* resembles the rattlesnake in conformation, but is much shorter—twelve to fifteen inches being its usual length. When irritated, it has the power of spreading itself widely, and hissing like a goose. Its head is very broad, is armed with fangs, and is very poisonous.

The *long blue snake* is from four to six feet in length. It has a light blue belly, with dark blue back. It has no fangs, and is not poisonous; will run from you, and is said to be the master of all snakes, encircling them in its coils until they are crushed to death.

The *little black runner* is a slim, tapering snake, three feet long, and very black. It is very rapid in its movements, and progresses with great speed, with its head high and bowed. Though it has no fangs, it will attack if annoyed.

The *coach-whip snake* is six feet long, slender, and black from the head half the distance to the tail; the rest is pieded with green and brown like the plaiting of a whip. Is not venomous.

The *garter snake* is small, from twelve to eighteen inches in length. It is one of the most beautiful snakes in the country; having, from head to tail, alternating circles of red, black and yellow, three-fourths of an inch in width. It lives mostly in the ground, and is not venomous.

The *cotton snake* is from two to three feet in length. Its head is large, body very small and green. It is seldom seen, and is very venomous.

The above brief synopsis will give the reader a general, though imperfect idea of the physical character of some of the reptile kingdom of the South-west. A minute detail would be foreign to the object of this communication. The effect produced by the bite of some of these reptiles interests us particularly as physicians. Although the subject has received the attention of medical writers, and the symptoms and phenomena following the inoculation of their poison, and the necessary treatment to neutralize and arrest its progress, have been ably discussed, but little notice has been taken of an annual recurrence of symptoms following the bite of some species. The course and peculiarity of the development of the poison when inoculated by the bite of different species, does not differ materially. That of the pilot and the two species of rattlesnake is most violent, yet more readily under the control of medicinal agents. The poison of the moccasin is slower in its progress, and most malignant in its character, and is followed by an annual recurrence. Of all the species of snakes that exist among us, none are more formidable that the swamp moccasin. Being exceedingly sluggish in their movements, they never retreat, but seek an opportunity of attack. Such is the virulence of their poison, that the part bitten sloughs off to some extent; and the *snake itself*, when wounded with any weapon or instrument, sloughs at the point of contact. In the last summer and first fall month they are more venomous and vicious than at any other time, and the disagreeable odor emitted from their bodies is perceivable at the distance of forty feet.

So far as my own observation extends, which is in accordance with that obtained from the aged and observing in whose statements confidence can be placed, no annual recurrence of symptoms has followed the bite of any species save the moccasin and spreading adder. I will instance three cases only of this, as examples of many more that might be adduced.

Case I.—Mr. —— was bitten on the leg, when ten years old, by a moccasin snake. In half an hour the leg became painful and swelled rapidly, the swelling extending to the hip, attended with high irritative fever. No medical aid being at hand, the foot and leg were immersed in hot brine, after which he drank freely of a decoction of cotton wood, applying the same in the form of a poultice to the wound. He recovered under this treatment, the wounded part sloughing freely. For eighteen years last past, he has had an annual recurrence of symptoms, attended with severe pain, similar to the first attack, but not accompanied with swelling. It occurred precisely at the same time in the year, continuing several days, and decreasing in severity every succeeding year. Last year, for the first time since receiving the wound, he experienced none. A singular circumstance relative to the location of these annual pains was, that for several years it was confined to the knee of the limb bitten; in a few years it left the knee and seized the hip, and finally it attacked the shoulder, the last attack being very slight.

Case II.—A slave was bitten ten years ago by a moccasin, at which time she was attacked with the symptoms usually attending the development of the inoculated poison. Every subsequent year, to the present, the same symptoms have returned, with less intensity, and with an absence of swelling. They readily yield to the usual antidotes, as at the first attack.

Case III.—A lady, aged 22, was bitten by an adder, and the usual symptoms followed. For twelve years she has had a recurrence of painful symptoms in the bitten limb, at the time of the year corresponding with the time she received the wound.

Other cases of a similar character might be adduced, but these are sufficient to substantiate the fact that an annual recurrence does follow the inoculated poison of the moccasin; and so far as my limited observation extends, has followed in every case. Wm. Stockbridge.

West Feliciana, La., June, 1843.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

AUGUST 16, 1843.

The Blue Lick Springs of Kentucky.—Through the entire mountain ridges of Virginia, the medicinal waters are gushing out at various points in copious streams; but some few locations have more reputation than others, which they will doubtless maintain for generations to come. In the State of Kentucky, there are fountains equally distinguished for their properties in subduing a variety of diseases, yet their geological relations are quite different from those on the lofty elevations of the Alleganies. They bubble up in peculiar depressions on the line of shallow ravines, technically called, in the vernacular of the country, *licks*. There are the *Blue Licks*, *Big-bone Licks*, &c. &c., well known to the traveller, the geographer, and those in pursuit of health.

From a remote antiquity, the wild animals of the forest traversed the whole region of country to gratify a strong and perhaps innate propensity for salt, which was held in solution in the water that was forced out of the ground at the licks. Nearly the whole if not all the licks are saline springs. There countless herds of buffaloes, the deer, and perhaps all the smaller animals, met at one common rallying place, to lick their mother earth, saturated with marine salt. There they probably contended for the right of possession, warring upon each other from age to age in the solitary gloom of a mighty forest, undisturbed by the footsteps of man, and there accumulations of skeletons were left to bleach and decay—the memorials of brute warfare. But long before—even at an epoch so distant that geology itself furnishes no data for a probable conjecture in respect to the period—the mastodon, colossal in size, and powerful in strength, sought the same licks and gratified the same indomitable appetite for salt that characterizes the races that have been ushered into being since its gigantic bones have been fossillizing under the feet of a new order of animal organization.

There is neither exaggeration nor extravagance in these observations, however much the relations of naturalists may excite the marvellousness of the unlearned in this rich but poorly cultivated domain of natural science. Within the last six weeks some extensive improvements have been in progress at the Lower Blue Lick Spring, requiring an enlargement of the well, in order to line it with stone. In digging only about three feet from the water, laterally, five feet below the surface, the tusk of a monster animal was uncovered, six feet two inches in length, by twenty-two inches in circumference, some portion of which is still in a tolerable degree of preservation. There were also several enormous grinders, that might have remained there, for aught that is known to the contrary, till the elements shall melt with fervent heat, unchanged in form and unaltered by the corroding influence of time. These extraordinary trophies, so recently discovered that their advent has not before been chronicled, now lie on the office floor of the hotel for the inspection of visiters. Such bones are unquestionably lying but a few feet below the soil, over the whole basin of the lick.

On the Lexington turnpike, twenty-four miles from Maysville, Ky., is the *Lower Blue Lick Spring*—a fashionable resort for persons of leisure during the sultry months of summer, and celebrated for its many medicinal properties, and consequently a great focus to which invalids concentrate from all parts of the United States. After passing through several hands, it has finally come into the possession of two or three brothers, who are conducting the establishment on a scale of elegance very satisfactory to the peripatetic public. The Spring is leased for ten years, at an annual rent of $1500, with a right to a deed by the payment of $25,000 at the expiration of the contract. Large quantities of the water are sent off in barrels, at $1 a barrel, but $2 is asked if the casks are furnished by the proprietors. It is said that the sales have amounted to $4000 in the last two months. Such is the increasing demand that New Orleans, Mobile, Natchez and Cuba have become extensive markets for it. Agencies are being established so actively, that it is fully believed the annual sales may reach as high as $12,000 within a few years.

When the water was used expressly for manufacturing salt, it required 800 gallons to yield one bushel—being in the proportion of 1 to 80. According to Dr. Yandell's analysis, it contains—sulphuretted hydrogen, 2; carbonic acid, 3; muriate of soda, 4; muriate of magnesia, 5; muriate of lime, 6; sulphate of lime, 7; sulphate of soda, 8; sulphate of magnesia, 9; carbonate of lime, and probably, says that able chemist, a trace of carbonate of magnesia. In its action upon the system it is purgative, diaphoretic, diuretic and alterative, and stands highest in rank in the catalogue of salino-sulphureous waters. On the report of the same gentleman, it is identical with the Harrowgate waters of England. With respect to its effects on the system, according to the representation of its friends, all maladies yield to its sovereign influence. They melt away under its potent agency like the odor of plants on the wings of a zephyr. It blows hot or it blows cold: in a word, it gently brings down the overgrown rotundity of a gourmand, or fattens the frail tenement of his antipode in dimensions. It is the misfortune of all mineral waters, in this country, either to be overrated by the incompetent, or underrated by physicians. When medicine has been judiciously prescribed for a considerable season, without manifest advantage, in certain obscure visceral, or perhaps cutaneous, affections, the patient not unfrequently posts off to a spring. There he drinks, till a restoration has been accomplished, not by the course he is pursuing, but mainly by the action of the very medicinal treatment that is overlooked—the exercise of a strong faith in the all-healing influences of the fountain. Better analyses are wanted. A more careful series of observations by medical men than have yet appeared, and a proper reliance on common sense and the wisdom of judicious practitioners, are also needed by those who hope for the most in visiting thermal or the ordinary mineral waters of any place.

Nothing short of miracles are ordinarily performed at the onset, in the estimation of new comers—an error that is soon corrected when the old malady peeps out again, after it was exorcised by the potency of a celebrated water. Finally, we have come to the conclusion that our real knowledge in regard to the true medicinal value of these waters, is very small indeed. There is abundant room for inquiry, and an imperfectly explored field is before the world, however much it may be bruited that nothing further remains to be investigated in relation to them. So many persons are interested in them as properties, that many obstacles are in the way of testing points of considerable moment; but after all, were the springs not the centres of fashionable life, where strangers, the elite from every community, far and near, concentrate to eat, drink, dance and be merry, they would at once be bereft of their reputation, and ultimately sink into utter oblivion, save in the estimation of those who might seek them from a higher motive—to be cured of a real and not imaginary disease.

Hoping hereafter to notice the characteristics of the White Sulphur, the Red, Blue and Sweet Springs of Virginia—the Warm and Hot being already partially disposed of—we shall then give attention to the Harrodsburg and Big Bone in Kentucky.

New York State Lunatic Asylum.—This is another, and the latest organized, of those institutions, the multiplication of which among us is conferring so great an honor on our age and country, and whose annual reports constitute so interesting a portion of the medical literature of the day. The first semi-annual report of the Superintendent of the above-named institution has just been made to the managers. It will be recollected that Dr. Brigham, formerly of the Hartford Retreat, is the Superintendent of this great asylum, which is capable of accommodating 300 patients, and under his care it appears to be quietly and efficiently fulfilling the noble objects for which it was founded. We are indebted to the Utica Observer for an extract of the Report alluded to.

The Asylum was opened for the admission of patients, on the 16th January, 1843, since which time 173 patients have been admitted, viz., 97 males and 76 females. County patients, 113; pay patients, 60.

Twenty-four patients have been discharged cured; 3 do. improved; 3 do. not improved; 4 have died.

One hundred and thirty-nine are now remaining in the Asylum, 6 of whom have recovered and will return home as soon as their friends come for them. None of the patients are now sick. No accident has occurred; the whole household have enjoyed good health, and all have escaped the prevailing influenza. The "County" patients are those who are sent to the Asylum by the courts of justice, by the first judge of the county, or by the county Superintendents of the poor. The expense of their maintenance in the Asylum is a county charge. Those denominated "pay" patients, are such as are supported at the Asylum by their relatives or friends, or by their own property. The counties are charged $2,50 per week for county patients. The pay patients are charged generally from $3 to $4 per week.

By the law organizing the Asylum and providing for the care and recovery of the insane, passed April 7, 1842, it is provided that in every case of lunacy hereafter occurring, "when the lunatic becomes so furiously mad or so far disordered in his senses, as to endanger his own person, or the persons or property of others, and is permitted to go at large," he shall be sent to the State Asylum, and no lunatic in any case of lunacy occurring after the Asylum was ready for the reception of patients, *can legally be confined for any longer time than ten days in any other place than this Asylum;* and the law provides that "Superintendents of the poor, and all persons having the care of such lunatics, shall see to carrying this into effect." The law also provides that all lunatics confined in jail, and all insane persons charged with or convicted of any criminal offence, shall be confined in this Asylum. And any person indicted for any criminal offence, who shall be acquitted on the ground of insanity, if the jury find that his insanity continues, the court "shall order him into safe custody, and to be sent to the Asylum."

The 26th section of the act gives power to the first judge of a county to send insane persons who are not paupers, *but are in indigent circumstances*, to the Asylum.

In the fourth story of the centre part of the asylum building is a chapel, finished in a neat but simple style, which was dedicated as a place of religious worship on the 12th ult. A large number of individuals were present from the city and neighboring towns, and many of the patients were also permitted to attend. A choir of singers, which had previously been organized among the inmates, took part in the services by singing several hymns which were written for the occasion. The other services consisted in the reading of Scripture and prayers by clergymen of Utica, and an appropriate discourse by the Rev. Dr. Nott, president of Union College. The whole ceremony is represented to have been interesting in the highest degree, and the good conduct manifested by the inmates who were present was a pledge of the beneficial influence which the chapel services will hereafter produce on "minds diseased."

Egyptian Eunuchs.—In the travels of the Rev. President Olin, in the East, recently published by the Harpers, he mentions that Siout and Girgeh, in Upper Egypt, furnish the East with eunuchs. The victims of a cruel and degrading mutilation are boys, usually from six to eight years old, purchased by the slave dealers of Sennar and other countries on the Upper Nile, and brought down by the caravans. They are sold to the operators at from twelve hundred to twenty-five hundred piastres each.

A large proportion perish under the tortures to which they are subjected, though the trade is still lucrative. says the author, as it encounters hardly any competition, and enjoys, in fact, a monopoly, not only in Egypt, but also in Turkey. About three hundred of these poor creatures, who are so fortunate as to survive the cruel discipline which is to fit them for a life of humiliation, he continues, usually go forth from those markets to become arguses to the harems of the jealous Mussulmen. They are frequently met with in Cairo and other parts of Egypt, and are easily recognized by their beardless, shrivelled faces, and feminine voices. From the nature of their employment, they are important personages in the social system of the East, and they have occasionally been honored with high public trusts. They are said, adds Dr. Olin, to be universally an unhappy race, and are regarded with sentiments of general contempt.

Medical Miscellany.—A meeting of the homœopathic physicians is announced in the Philadelphia papers, the object being to pay a proper tribute to the memory of Dr. Hahnemann.—At New Orleans, during the week ending 29th July, there were six deaths from yellow fever.—It is stated that a vessel was below New York last week, from New Orleans, with all hands sick with yellow fever.—Twenty-four graduates received the degree of Doctor of Medicine at the late commencement at Dartmouth College.

Married,—In Boxborough, Mass., Dr. Elbridge G. Wood, of Winchenden, to Miss Sarah Priest, of B.

Died,—At Middlesex, Vt., Dr. Rial Blanchard, 30.—At Peru, Ill., Dr. Frederick Hall, an eminent physician of Washington city, and Professor of Chemistry and Pharmacy in Columbian College, 64.—At Seawell's Point, Norfolk Co., Va., Dr. Aaron Buzzell, a native of Parsonsfield, Me., 50.

Number of deaths in Boston, for the week ending Aug. 12, 42.—Males, 22—Females, 20. Stillborn, 4.

Of consumption, 1—inflammation of the bowels, 4—canker in the bowels, 1—typhus fever, 3—infantile, 7—child-bed, 1—measles, 2—canker, 1—fits, 1—dysentery, 1—lung fever, 2—dropsy on the brain, 2—stoppage in the bowels, 1—suffocation, 1—bowel complaint, 1—scrofula, 1—cholera infantum, 3—sudden, 1—cramp in the stomach, 1—hooping cough, 1—dropsy in the head, 1—spasms, 1—cancer, 1—bilious colic, 2—tumor, 1.

Under 5 years, 27—between 5 and 20 years, 3—between 20 and 60 years, 12—over 60 years, 0.

REGISTER OF THE WEATHER,

Kept at the State Lunatic Hospital, Worcester, Mass. Lat. 42° 15′ 49″. *Elevation* 483 *ft.*

July.	Therm.		Barometer.		Wind.	July.	Therm.		Barometer.		Wind.
1	from 68	to 88	from 29.40	to 29.43	S W	17	from 57	to 70	from 29.47	to 29.51	S E
2	70	89	29.19	29.29	S	18	67	82	29.24	29.31	W
3	61	66	29.22	29.41	N W	19	70	81	29.23	29.29	N W
4	51	73	29.37	29.48	W	20	54	70	29.32	29.40	N W
5	62	70	29.22	29.40	N W	21	52	74	29.40	29.46	W
6	54	73	29.39	29.40	N W	22	56	84	29.35	29.46	S W
7	56	70	29.18	29.42	S W	23	66	85	29.36	29.43	N W
8	60	79	29.21	29.24	W	24	63	85	29.20	29.27	N W
9	57	77	29.32	29.35	N W	25	54	76	29.37	29.50	N W
10	64	76	29.25	29.33	S W	26	54	83	29.33	29.55	S W
11	65	76	29.31	29.44	S W	27	68	85	29.40	29.59	W
12	56	89	29.55	29.71	N W	28	62	73	29.36	29.57	S E
13	65	83	29.75	29.81	S W	29	73	80	29.22	29.32	S W
14	58	78	29.59	29.75	S W	30	58	62	29.38	29.40	N
15	61	80	29.49	29.52	N E	31	57	71	29.40	29.41	N W
16	57	76	29.48	29.50	S E						

The first part of the month of July, after the first two days, was cold and dry—a fine season for the farmers to gather their crops, but bad for the growth of vegetables and grass. Had fine showers about the middle of the month, and a fine rain at the close. Range of Thermometer, from 51 to 89. Barometer, from 29.19 to 29.81. Rain fallen, 3.39 inches.

Physiology and Pathology of the Water-cure.—Professor Schultz instituted experiments on horses and oxen, to ascertain the changes induced in the blood by water-drinking and by mechanical dilution. We have not room for the details, but the general results are that estimating the mass of blood in a man at thirty pounds, 17.36 ounces of water may be added to the circulation by drinking it; and that in proportion as the blood becomes more watery, a separation of the coloring matter from the vesicles is more extensive and its solution in the plasma more facile. In the water-cure, three things are to be considered, namely, 1, the water itself, as water; 2, its temperature; and 3, its chemical constituents. Professor Schultz shows that the temperature is the main agent in the Priessnitz method, the alternation of cold and heat acting upon the skin, and inducing reaction and violent diaphoresis. In young constitutions, and those in whom the organs are not structurally diseased, the diaphoretic method of Graffenberg may be beneficial, but it cannot be considered otherwise than as a cruel and dangerous remedy for weak, elderly people. Perspirations induced by vigorous exercise, medicines being administered as auxiliary thereto, are from our experience exceedingly serviceable in those diseases in which the water-cure is found most beneficial, namely, chronic visceral disease in gouty subjects past middle age, or in individuals who have lived fast. When the separation of the coloring matter from the vesicles is indicated, means less irksome than the water-cure may be adopted. This indication is readily fulfilled, Professor Schultz asserts, by drinking acidulated drinks, in fact by the *acid*-cure. Melanotic, bilious cachexies have yielded to the ingestion of two quarts of acidulated lemonade daily: one quart to be taken in the forenoon, and another in the afternoon.—*Br. Med. Rev.*

Preparation of Soluble Cream of Tartar. By M. CAMBORNAC.—R. Bitartrate of potassa, 400 grains; borate of soda, 200 grains; tartaric acid, 11,000 grains. I dissolve the salts and the acid together; when the solution is complete, I clarify it with white of egg, and filter. I again put it on the fire and continue the operation as directed by the Codex. The product is of a decided acid taste, very soluble, and possessed of purgative properties as active as those of ordinary cream of tartar; and is decidedly preferable to the latter.—*Journ. de Chimie Médicale.*

Preparation of Churrus, or Resinous Extract of Indian Hemp.—In Central India, and the Saugor territory, and in Nipal, *churrus* is collected during the hot season in the following singular manner:—Men, clad in leathern dresses, run through the hemp-fields, brushing through the plant with all possible violence; the soft resin adheres to the leather, and is subsequently scraped off, and kneaded into balls, which sell at from five to six rupees the seer. A still finer kind, the *momeea* or waxen *churrus*, is collected by the hand in Nipal, and sells for nearly double the price of the ordinary kind. In Nipal, Dr. M'Kinnon informs us, the leathern attire is dispensed with, and the resin is gathered on the skins of naked coolies. In Persia, it is stated by Mirza Abdul Russac, that the *churrus* is prepared by pressing the resinous plant on coarse cloths, and then scraping it from these and melting it in a pot with a little warm water. He considers the *churrus* of Herat as the best and most powerful of all the varieties of the drug.—*O'Shaughnessy's Bengal Dispensatory.*